

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2 5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day month year)

10 July 2001 (10.07.01)

International application No.

PCT/US00/25515

International filing date (day month year)

14 September 2000 (14.09.00)

Applicant's or agent's file reference

PF-0742 PCT

Priority date (day/month/year)

15 September 1999 (15.09.99)

Applicant

YUE, Henry et al

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

12 April 2001 (12.04.01)



in a notice effecting later election filed with the International Bureau on:

2. The election



was



was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Form PCT/IB 331 (July 1992)

Authorized officer:

Claudio Borton

Telephone No.: (41-22) 338.83.38

US0025515

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 00/25515

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/55 C12N15/54 C12N15/11 C12N9/12 C12N9/16
C07K16/40 C12Q1/68 A01K67/027 A61K31/713 G01N33/50
G01N33/53

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K A61K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 09199 A (RYAZANOV ALEXEY G ;UNIV NEW JERSEY MED (US); PAVUR KAREN S (US); H) 25 February 1999 (1999-02-25) page 17 -page 18; figure 1	1,3,4, 6-9,16
A	MARTELL K J ET AL: "HVVH-5: A PROTEIN TYROSINE PHOSPHATASE ABUNDANT IN BRAIN THAT INACTIVATES MITOGEN-ACTIVATED PROTEIN KINASE" JOURNAL OF NEUROCHEMISTRY,US,NEW YORK, NY, vol. 65, no. 4, 1995, pages 1823-1833, XP000196676 ISSN: 0022-3042	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "Z" document member of the same patent family

Date of the actual completion of the international search

19 February 2001

Date of mailing of the international search report

17 May 2001 (17.05.01)

Name and mailing address of the ISA

European Patent Office, P.B. 5815 Patentlaan 2
NL-2250 H.V. Rijswijk
Tel: +31 70 340 2040 Fax: +31 70 340 2041
Fax: +31 70 340 3016

Authorized officer

Blanco Urgoiti, B

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 00/25515

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
----------	--	-----------------------

A	STONE S R ET AL: "THE NUCLEOTIDE SEQUENCE OF THE COMPLEMENTARY DNA ENCODING THE HUMAN LUNG PROTEIN PHOSPHATASE 2A-ALPHA CATALYTIC SUBUNIT" NUCLEIC ACIDS RESEARCH, vol. 16, no. 23, 1988, page 11365 XP002160654 ISSN: 0305-1048 ----	
---	--	--

A	KUHEN K L ET AL: "Mechanism of interferon action Sequence of the human interferon-inducible RNA-dependent protein kinase (PKR) deduced from genomic clones" GENE: AN INTERNATIONAL JOURNAL ON GENES AND GENOMES,GB,ELSEVIER SCIENCE PUBLISHERS, BARKING, vol. 178, no. 1, 31 October 1996 (1996-10-31), pages 191-193, XP004043360 ISSN: 0378-1119 -----	
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INTERNATIONAL SEARCH REPORT

national application No.
PCT/US 00/25515

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 18 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 20,21,23,24
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims: it is covered by claims Nos.:

1-28 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest
☐ No protest accompanied the payment of additional search fees

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-28 (partially)

A polypeptide with an amino acid sequence of SEQ ID NO.1, 90% identical, or an immunogenic or biological active fragment. The polynucleotide encoding the same. Promoter sequence, transformed host cell containing said polynucleotide. Transgenic organism comprising said polynucleotide. Method for producing the polypeptide of SEQ ID NO.1. An antibody binding to such polypeptide. A polynucleotide comprising the polynucleotide sequence of SEQ ID NO.12, 90% identical, or complementary. A polynucleotide comprising at least 60 nucleotides of said polynucleotide. A method for detecting such polynucleotide in a sample by hybridization with a probe. A method for detecting such polynucleotide in a sample by polymerase chain reaction. A composition comprising such polypeptide and a pharmaceutical excipient. A method for treating a disease, administering to a patient said composition. A method for screening an agonist of such polypeptide, and a composition comprising such agonist, and a pharmaceutical excipient. A method for screening an antagonist of such polypeptide, and a composition comprising such antagonist, and a pharmaceutical excipient. Methods of treatment using said agonist or antagonist. Method for screening ligands of said polypeptide. Method of screening modulators of the activity of such polypeptide. Method for screening modulators of the expression of the polynucleotide of SEQ ID NO.12. Method for assessing toxicity of a compound, adding such compound in a sample and comparing the amount of said polynucleotide present in such a sample, compared to the amount present in an untreated sample.

2. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 2 and polynucleotide of SEQ ID NO 13.

3. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 3 and polynucleotide of SEQ ID NO 14.

4. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 4 and polynucleotide of SEQ ID NO 15.

5. Claims: 1-28 (partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Idem as invention 1 but limited to polypeptide of SEQ ID NO 5 and polynucleotide of SEQ ID NO 16.

6. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 6 and polynucleotide of SEQ ID NO 17.

7. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 7 and polynucleotide of SEQ ID NO 18.

8. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 8 and polynucleotide of SEQ ID NO 19.

9. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 9 and polynucleotide of SEQ ID NO 20.

10. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 10 and polynucleotide of SEQ ID NO 21.

11. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 11 and polynucleotide of SEQ ID NO 22.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 20,21,23,24

Claims 20,21,23, and 24 refer to antagonists respectively agonists of the polypeptide without giving a true technical characterization. Moreover, no such compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Art. 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/25515

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9909199 A	25-02-1999	AU 9110098 A EP 1060260 A	08-03-1999 20-12-2000

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 March 2001 (22.03.2001)

PCT

(10) International Publication Number
WO 01/20004 A2

(51) International Patent Classification: **C12N 15/55**,
15/54, 15/11, 9/12, 9/16, C07K 16/40, C12Q 1/68, A01K
67/027, A61K 31/713, G01N 33/50, 33/53

(21) International Application Number: PCT/US00/25515

(22) International Filing Date:
14 September 2000 (14.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/154,141 15 September 1999 (15.09.1999) US

(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier application:
US 60/154,141 (CIP)
Filed on 15 September 1999 (15.09.1999)

(71) Applicant (for all designated States except US): **INCYTE
GENOMICS, INC.** [US/US]: 3160 Porter Drive, Palo
Alto, CA 94304 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **YUE, Henry**
[US/US]: 826 Lois Avenue, Sunnyvale, CA 94087 (US);
TANG, Y., Tom [CN/US]: 4230 Ranwick Court, San
Jose, CA 95118 (US); **BANDMAN, Olga** [US/US]: 366
Anna Avenue, Mountain View, CA 94043 (US); **HILL-
MAN, Jennifer, L.** [US/US]: 230 Monroe Drive, #17,

Mountain View, CA 94040 (US); **BAUGHN, Mariah, R.**
[US/US]: 14244 Santiago Road, San Leandro, CA 94577
(US); **AZIMZAI, Yalda** [US/US]: 2045 Rock Springs
Drive, Hayward, CA 94545 (US); **LU, Dyung, Aina, M.**
[US/US]: 55 Park Belmont Place, San Jose, CA 95136
(US).

(74) Agents: **HAMLET-CON, Diana** et al.; Incyte Genomics,
Inc., 3160 Porter Drive, Palo Alto, CA 94304 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

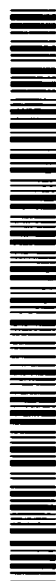
Published:

*Without international search report and to be republished
upon receipt of that report.*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: PROTEIN PHOSPHATASE AND KINASE PROTEINS

(57) Abstract: The invention provides human protein phosphatase and kinase proteins (PPIKP) and polynucleotides which identify and encode PPIKP. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of PPIKP.



WO 01/20004 A2

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 30 OCT 2001

WIPO

PCT

Applicant's or agent's file reference PF-0742 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/25515	International filing date (day/month/year) 14 SEPTEMBER 2000	Priority date (day/month/year) 15 SEPTEMBER 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant INCYTE GENOMICS, INC.		

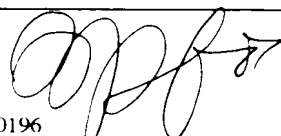
1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 12 APRIL 2001	Date of completion of this report 16 AUGUST 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer TEKCHAND SAIDHA 
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

I. Basis of the report1. With regard to the **elements** of the international application: *

- ☒ the international application as originally filed
- ☒ the description:
pages 1-79 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the claims:
pages 80-83 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the drawings:
pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the description:
pages 1-19 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☒ contained in the international application in printed form
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig. NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)) **

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/25515

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims <u>1-28</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-28</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-28</u>	YES
	Claims <u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-28 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed polypeptides or the biologically active or immunogenic fragments of the polypeptides and/or the encoding nucleic acid sequences. Similarly the methods of its use are novel and well outside the range of the teachings of WO 99/09199 A.

Claims 1-28 meet the criteria set out in PCT Article 33(4), because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/25515

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): C12N 9/12, 1/20, 15/00; C07H 21/04; A61K 38/48 and US Cl.: 435/194, 252.3, 320.1; 536/23.2; 424/94.5

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PF-0742 PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 00/ 25515	International filing date (day/month/year) 14/09/2000	(Earliest) Priority Date (day/month/year) 15/09/1999
Applicant INCYTE GENOMICS, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☒ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/25515

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 18 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 20,21,23,24
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-28 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-28 (partially)

A polypeptide with an amino acid sequence of SEQ ID NO.1, 90% identical, or an immunogenic or biological active fragment. The polynucleotide encoding the same. Promoter sequence, transformed host cell containing said polynucleotide. Transgenic organism comprising said polynucleotide. Method for producing the polypeptide of SEQ ID NO.1. An antibody binding to such polypeptide. A polynucleotide comprising the polynucleotide sequence of SEQ ID NO.12, 90% identical, or complementary. A polynucleotide comprising at least 60 nucleotides of said polynucleotide. A method for detecting such polynucleotide in a sample by hybridization with a probe. A method for detecting such polynucleotide in a sample by polymerase chain reaction. A composition comprising such polypeptide and a pharmaceutical excipient. A method for treating a disease, administering to a patient said composition. A method for screening an agonist of such polypeptide, and a composition comprising such agonist, and a pharmaceutical excipient. A method for screening an antagonist of such polypeptide, and a composition comprising such antagonist, and a pharmaceutical excipient. Methods of treatment using said agonist or antagonist. Method for screening ligands of said polypeptide. Method of screening modulators of the activity of such polypeptide. Method for screening modulators of the expression of the polynucleotide of SEQ ID NO.12. Method for assessing toxicity of a compound, adding such compound in a sample and comparing the amount of said polynucleotide present in such a sample, compared to the amount present in an untreated sample.

2. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 2 and polynucleotide of SEQ ID NO 13.

3. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 3 and polynucleotide of SEQ ID NO 14.

4. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 4 and polynucleotide of SEQ ID NO 15.

5. Claims: 1-28 (partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Idem as invention 1 but limited to polypeptide of SEQ ID NO 5 and polynucleotide of SEQ ID NO 16.

6. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 6 and polynucleotide of SEQ ID NO 17.

7. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 7 and polynucleotide of SEQ ID NO 18.

8. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 8 and polynucleotide of SEQ ID NO 19.

9. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 9 and polynucleotide of SEQ ID NO 20.

10. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 10 and polynucleotide of SEQ ID NO 21.

11. Claims: 1-28 (partially)

Idem as invention 1 but limited to polypeptide of SEQ ID NO 11 and polynucleotide of SEQ ID NO 22.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 20,21,23,24

Claims 20,21,23, and 24 refer to antagonists respectively agonists of the polypeptide without giving a true technical characterization. Moreover, no such compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Art. 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/25515

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/55 C12N15/54 C12N15/11 C12N9/12 C12N9/16
 C07K16/40 C12Q1/68 A01K67/027 A61K31/713 G01N33/50
 G01N33/53

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K A61K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 09199 A (RYAZANOV ALEXEY G ;UNIV NEW JERSEY MED (US); PAVUR KAREN S (US); H) 25 February 1999 (1999-02-25) page 17 -page 18; figure 1	1,3,4, 6-9,16
A	MARTELL K J ET AL: "HVH-5: A PROTEIN TYROSINE PHOSPHATASE ABUNDANT IN BRAIN THAT INACTIVATES MITOGEN-ACTIVATED PROTEIN KINASE" JOURNAL OF NEUROCHEMISTRY,US,NEW YORK, NY, vol. 65, no. 4, 1995, pages 1823-1833, XP000196676 ISSN: 0022-3042	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier document but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
 "&" document member of the same patent family

Date of the actual completion of the international search

19 February 2001

Date of mailing of the international search report

PCT

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL-2280 HV Rijswijk
 Tel: (+31-70) 340-2040, Tx: 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Blanco Urgoiti, B

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/25515

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	STONE S R ET AL: "THE NUCLEOTIDE SEQUENCE OF THE COMPLEMENTARY DNA ENCODING THE HUMAN LUNG PROTEIN PHOSPHATASE 2A-ALPHA CATALYTIC SUBUNIT" NUCLEIC ACIDS RESEARCH, vol. 16, no. 23, 1988, page 11365 XP002160654 ISSN: 0305-1048 ---	
A	KUHEN K L ET AL: "Mechanism of interferon action Sequence of the human interferon-inducible RNA-dependent protein kinase (PKR) deduced from genomic clones" GENE: AN INTERNATIONAL JOURNAL ON GENES AND GENOMES,GB,ELSEVIER SCIENCE PUBLISHERS, BARKING, vol. 178, no. 1, 31 October 1996 (1996-10-31), pages 191-193, XP004043360 ISSN: 0378-1119 -----	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/25515

Patent document
cited in search report

Publication
date

Patent family
member(s)

Publication
date

WO 9909199

A

25-02-1999

AU

9110098 A

08-03-1999

EP

1060260 A

20-12-2000